LightOn Appliance, a photonic co-processor sets a new pathway for Transformative AI computing

PARIS, France, March 8th, 2021 -- Paris-based startup LightOn unveiled today its Appliance, the world's most powerful photonic co-processor for AI and HPC. Initially available on its own cloud platform, LightOn's technology can now be installed on-premises, as a 2U rackable unit. LightOn's Optical Processing Unit (OPU) technology combines the massively parallel scales required by today's most challenging AI workloads, with an extremely low power consumption. LightOn Appliance is today's most accessible way of discovering the future of computing, in your own datacenter.

The LightOn Appliance leverages photonics to process large-scale generic data into information-revealing "sketches", opening new avenues ranging from fundamental issues in mathematics and machine learning, up to alleviating some of today's largest bottlenecks in production for data science, HPC and AI. Current specifications are setting new standards for sustainable AI acceleration, with more than 1.500 TeraOPS at about 30 W TDP.

During the trial phase, Maurizio Filippone, AXA Chair of Computational Statistics and Associate Professor at Eurecom, France had this to say about LightOn's technology: "We are hugely excited about the potential of Optical Processing Units to change the way we think and implement Machine Learning models. OPUs offer a truly promising solution, by offering randomized computations with low power consumption."

Ivan Dokmanić, Adjunct Associate Professor of ECE at the University of Illinois at Urbana-Champaign and Associate Professor, Department of Mathematics and Computer Science, University of Basel, Switzerland, also declared: "Being able to do real experiments by simply importing the OPU in Python and tapping this sophisticated technology from a Jupyter notebook is an incredible boon to my group's workflow. It has been central to our research and publication process, with OPU-fueled results making it to flagship AI conferences like NeurIPS."

Finally, Igor Carron, LightOn's CEO, declared about the release of the Appliance: "Transformative AI such as OpenAI GPT-3 is starting to blossom with huge economic promises while stressing global silicon capabilities. With the Appliance, LightOn is enabling researchers, scientists and engineers to open pathways to large scale computations that would just not be feasible with current silicon technology. "

LightOn is already accepting pre-orders for the Appliance, available under leasing schemes starting at € 1.900 per month. A product data sheet as well as pricing information are available at LightOn.ai/lighton-appliance

About LightOn

LightOn provides high-performance Photonic Computing for Large Scale Transformative AI. Its groundbreaking technology unlocks Machine Learning models orders of magnitude larger than state-of-the-art, by re-imagining the whole hardware and algorithmic stack. LightOn's technology is currently available to a large community of users (Data Scientists, Machine Learning scientists and engineers) through the LightOn Cloud or on-premises with the LightOn Appliance. Founded in 2016, LightOn is funded by Anorak Ventures and Quantonation. LightOn.ai

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